

# **An Assessment of the CRC Torres Strait: 2003-2007**

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# Executive Summary

## Stakeholders

For research issues, the Torres Strait Regional Authority (TSRA) should be viewed as made up of (at least) two operational sections: a fisheries unit; and a land and sea management unit (LSMU). The Native Title Office may also assess research in light of the possible relationship with native title rights and interests, and as individual Prescribed Bodies Corporate (PBCs) develop further capacity, they will become critical research stakeholders. The proposed new community governance regime for the Torres Strait may also have implications for future research liaison.

## Knowledge of the CRC's Work

Not all projects have been completed.

Not all of the results have been made available.

In general, it is thought that the Cooperative Research Centre Torres Strait (CRC) was not wound up adequately with respect to the dissemination of results.

A web site as the sole device for releasing results is not generally favoured.

Agencies had a more complete grasp of the CRC's research portfolio than did non-agency people.

Non-agency people were likely to only know about the projects in which they were involved.

## Usefulness and Impact (Potential)

The Australian Fisheries Management Authority (AFMA) on Thursday Island view the work on the marine species (including turtle and dugong) as being of most use to them, in line with their management role.

The TSRA's fisheries unit has most use for the CRC's marine species research and some use for the environmental research, in the area of community management and ranger programs.

The TSRA's LSMU has most use for the CRC's environmental research and some use for the marine species research, in the area of community management and ranger programs.

The TSRA and non-agency respondents felt that the CRC's research into aquaculture had significant potential in terms of sustaining the wild resource and creating commercial opportunities.

The TSRA and AFMA felt that the work on the Protected Zone Joint Authority (PZJA), the guidelines and the CRC data base, are potentially useful to them.

The erosion research is of considerable interest to non-agency people and to the LSMU of the TSRA.

In general, people would consider environmental research more valuable if it was related to the marine species with which they are involved.

It is thought that the CRC's research increased people's awareness of marine issues, and of the relatedness between marine species and environment.

The beche de mer research is viewed negatively by all non-agency parties.

## Ongoing Utilisation

The TSRA utilises the turtle and dugong work and the seagrass work in supporting community-based environmental management and ranger programs.

AFMA's current engagement with turtle and dugong management issues are partly a flow-on from the CRC projects.

AFMA engages with Thursday Island Campus on marine management issues, partly as a flow-on from the CRC research.

The Erub Island Community freezer continues to record partial subsistence catch data.

Hammond Island continues to record turtle and dugong catch monitoring data in liaison with the CRC researcher; TRAWQ Community Council on Thursday Island does not.

The CRC's research subjects and processes have been incorporated into the education system, particularly at Thursday Island Campus.

The Mer Fisheries Management Team has utilised the results of the east reef line fishery in their community management plan.

It was unclear the extent to which any local parties use the seabed movement research, and the seabed mapping research.

It is not clear that the research projects that aimed to establish new systems e.g. catch monitoring, included strategies to ensure that the systems would be continued post-CRC.

## Sensitivities and Handling Them

There is some sensitivity with any research that has to do with marine species that are consumed or sold.

The CRC projects that appeared to be the most sensitive were those on turtle and dugong, and subsistence.

In the turtle and dugong projects, some of the tensions were due to untimely media releases.

In the subsistence project, some tension came from misunderstandings about the research aims.

Tensions and sensitivities were reduced by the work of the liaison officer and through the development of project protocols, after which the researchers carried out their work well.

## Glossary of Terms

AFMA	.....	Australian Fisheries Management Authority
AIMS	.....	Australian Institute of Marine Science
AQIS	.....	Australian Quarantine and Inspection Service
CRC	.....	Cooperative Research Centre for Torres Strait
CSIRO	.....	Commonwealth Scientific and Industrial Research Organisation
DFAT	.....	Commonwealth Department of Foreign Affairs and Trade
DPI&F	.....	Queensland Department of Primary Industries and Fisheries
Erub	.....	Darnley Island
FMT	.....	Fisheries Management Team (Mer Island)
GBRMPA	.....	Great Barrier Reef Marine Park Authority
ICC	.....	Island Coordinating Council
JCU	.....	James Cook University
LSMU	.....	Land and Sea Management Unit (part of the TSRA)
MAC	.....	Management Advisory Committee (of the PZJA)
Masig	.....	Yorke Island
Mer	.....	Murray Island
MTSRF	.....	Marine and Tropical Sciences Research Facility
NOO	.....	National Oceans Office
NPA	.....	Northern Peninsula Association (communities on the tip of Cape York)
NRM	.....	Natural Resource Management
PBC	.....	Prescribed Body Corporate
PNG	.....	Papua New Guinea
Poruma	.....	Coconut Island
PZJA	.....	Protected Zone Joint Authority
QBuild	.....	Queensland Department of Public Works
Qld DPI&F	.....	Queensland Department of Primary Industries and Fisheries
QSIA	.....	Queensland Seafood Industry Association
RRRC	.....	Reef and Rainforest Research Centre
SAC	.....	Torres Strait Scientific Advisory Committee (of the PZJA)
TAC	.....	Total allowable catch
TOR	.....	Terms of Reference
TI	.....	Thursday Island
TO	.....	Traditional Owners
TRAWQ	.....	Community Council (on Thursday Island)
TRL	.....	Tropical Rock Lobster
TS	.....	Torres Strait
TSRA	.....	Torres Strait Regional Authority
WNM	.....	Waiben, Ngurapai, Muralug (an Inner Islands Fisherman's Association)

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## Confidentiality

Several people asked for their comments to remain confidential and this has been respected in the style of the report.

## Background

The CRC ran substantially from 2003 to early 2007, it was administered by CRC Reef in Townsville and its research program was overseen through the Torres Strait Scientific Advisory Committee (SAC). Its core partners were AFMA, TSRA, Australian Institute of Marine Sciences (AIMS), the Commonwealth Scientific and Industrial Research Organisation (CSIRO), CRC Reef, Geoscience Australia, James Cook University (JCU), the National Oceans Office (NOO), Queensland Department of Primary Industry and Fisheries (Qld DPI&F). Supporting partners were the Great Barrier Reef Marine Park Authority (GBRMPA), Great Barrier Reef Foundation, and the Queensland Seafood Industry Association (QSIA). Partners to the CRC contributed funds in cash and in in-kind (through providing staff and equipment). Major cash contributors to the CRC were the TSRA and AFMA. Since the mid 1980s AFMA has had an annual dedicated research allocation for Torres Strait of some \$0.5 million; between 2003 and 2006 the majority of these funds formed AFMA's cash contribution to the CRC.

The CRC was not successful in obtaining government funds to extend its work after 2007 however some of its research themes are being continued under the Marine and Tropical Science Research Facility (MTSRF), administered by the Reef and Rainforest Research Centre (RRRC). MTSRF started in 2006 and will run to 2010. MTSRF plans five areas of research in Torres Strait, namely:

1. The knowledge of the biomass and habitats of the seabed and reefs and risks to these.
2. The potential commercial value of sponges.
3. An economic analysis of the possible uses of the natural resources.
4. A combined report card on the status of the environment.
5. The employment of a research liaison officer in the TSRA.

The TSRA will participate in Torres Strait projects of MTSRF. AFMA will not contribute to MTSRF and will carry out fisheries research from within its own annual budget as it did previous to the CRC.

## Scope of This Assessment

The terms of reference (TOR) required this study to:

1. Identify the key direct and indirect Torres Strait-based stakeholders of the work of the CRC Torres Strait;
2. Assess:
  - a. Their knowledge of CRC's work;
  - b. Their views of outcomes and ongoing utilization of the work;
  - c. Their views of the success, impact or usefulness of the CRC for the community and themselves;
3. Identify what the Torres Strait-based stakeholders regard as culturally important and culturally sensitive and:
  - a. Identify the work that can be defined as such;
  - b. Whether they believe the CRC research providers engaged appropriately on these issues.

The institutional landscape is dynamic and to capture some current changes, TOR 1 includes some possible future stakeholders.

When commenting on the CRC several respondents referred to the research they would like to see happen in Torres Strait. These comments have been included in a final section called 'Future Research'.

## Method and Terminology

Those who took part in the assessment are classified as agency and non-agency respondents. Agency respondents are those in government agencies including schools; and non-agency respondents are everyone else (community councils, fishers, island residents etc).

**Table 1:** A summary of the CRC's research projects.

<b>CRC 'Task' #</b>	<b>Short Title of the CRC Torres Strait Research Projects</b>
<b><i>Marine Projects</i></b>	
1.1 and 1.14	Evaluate the Eastern reef line fishery
1.2	Assess the status of the mackerel fishery
1.3	Assess the lobster fishery and suggest a possible total allowable catch (TAC)
1.4 and 1.13	Assess the beche de mer fishery, plus workshops on Mer, Erub, Masig
1.5	Gather data to manage the prawn fishery
3.3	Develop a management strategy for the prawn fishery based on a combination of factors (1)
1.6 and 1.6a	Assess the potential for a sponge fishery
1.7	Assess the potential for aquaculture
1.8	Gather data on the Eastern subsistence fishery
3.1	Determine culturally important marine resources and activities (2)
1.10, 1.11, 4.2, 4.3, 4.3a	Turtle and dugong project, catch data system, recovery methods, strategies for management, Islander involvement
<b><i>Environmental Projects</i></b>	
2.1, 2.1a	Map the seabed and its biomass
2.2	Determine the movement of the seabed (sandwaves)
3.7	Investigate the issue of coastal erosion (3)
2.3, 4.1, 4.1a, 3.6	Seagrass project, abundance, quality in Thursday Island port, involve students in monitoring
3.2	Information to manage introduced marine species
3.4	Determine the environmental health and risks associated with shipping lanes and Thursday Island port
3.5	Provide baseline information on the introduced marine pests in Thursday Island port
<b><i>Policy and Administrative Projects</i></b>	
4.7	Review the operations of the PZJA re the aspirations of Islanders
5.1 and 5.1a	Provide guidelines for ethical research and communication of CRC results
5.2	Set up a system to manage CRC research data and information

Notes:

1. Held in abeyance by AFMA.
2. To be completed under the MTSRF program.
3. The erosion project was added to the portfolio towards the end of the CRC and is ongoing. This project is funded under the Natural Heritage Trust program, and is project managed by a team from James Cook University.

Interviews were carried with a sample of agency and non-agency people. Most of those interviewed had had some contact with the CRC and were thought to be likely stakeholders,

but an attempt was made to include some people who did not have contact with the CRC. Interviews were with individuals or with groups of two or three people, depending on the circumstances. There were no large whole-of-community sessions or meetings. Those bodies interviewed and the places visited are in Appendix A.

Two standard questionnaires were devised, one for non-agency people and one for government agencies. These were only partly successful and were not used throughout. In those cases where the questionnaires were not used, they formed a general framework for structured interviews. The standard questionnaires are in Appendix B.

For this assessment, the CRC's 'tasks' are referred to as projects. In an attempt to reflect the rationale of the CRC and to make the overall endeavour comprehensible to as many respondents as possible, the research projects were arranged in three groups for the assessment, these are: marine projects; environmental projects; and policy and administrative projects. They are shown in Table 1 with a short title and their original CRC 'task' numbers. Where it seemed necessary, the 'task' number is shown in the text e.g. (1.11).

## Findings

### Caveats

At the time of the interviews some of the CRC projects had not been completed. These include the project to determine the cultural value of marine species (3.1), a project on coastal erosion (3.7) and an integrated prawn management model (3.3).

In addition, the base and web site of the CRC's results (5.2) was only made available in draft form one week before the assessment commenced. This made it difficult to discuss results with people and reduced their ability to assess the CRC's usefulness to them. This had the greatest impact on TOR 2.

The CRC's research portfolio is comprehensive. Stakeholder interest varied across the portfolio. For example, AFMA were most interested in the projects on marine species, while the TSRA were interested in almost all of the research. This subtlety is not captured in the TORs and only a limited attempt has been made to cover it in the assessment.

## TOR 1.

### Direct and indirect stakeholders of the CRC's work in Torres Strait (and of future similar research)

#### Direct present stakeholders

- TSRA management. The TSRA was a core partner of the CRC and a stakeholder, and considers itself an end-user of the CRC work and of any future similar research.
- TSRA fisheries portfolio. This unit has a policy arm and a community liaison arm which would be an end-user of the CRC results. The unit was developed towards the end of the CRC and will be a stakeholder in future marine research.
- TSRA Land and Sea Management Unit. The LSMU was developed out of the Natural Resource Management (NRM) planning process funded under the Natural Heritage Trust (NHT); its staff work on land and sea issues including turtle and dugong and

ranger programs. It would be an end-user of most of the CRC work and a future stakeholder. The LSMU hosts the current MTSRF community liaison officer.

- AFMA on Thursday Island was a core partner of the CRC and an end-user of the results – though principally those results associated with fisheries (commercial and subsistence) and turtle and dugong. AFMA is less likely to be a major stakeholder in MTSRF research.
- Thursday Island Campus (formerly Thursday Island State High School) collaborated with the CRC and wishes to have further collaboration on a variety of marine research topics (see Future Research). The school's long-term aim is to establish a Marine Research Institute. The school requested direct engagement with future research bodies.
- Ports Queensland on Thursday Island was involved in the CRC and expressed a working interest in the marine pests research.
- Island Freezer managers who were involved in the CRC research.
- The community Fisheries Management Team (FMT) at Mer. The FMT advises the Mer Council on fisheries matters.
- Community fisher representatives and Community Fisher Groups.
- Island Councils involved in the research.
- The Members of Waiben, Ngurapai, Muralug (WNM) fisherman's association of the Inner Islands.
- The Kaurareg Aboriginal Corporation on Horn Island.
- Torres Shire. The Shire was a signatory to the turtle and dugong project and should be involved in future similar research.
- All of the elements of the PZJA (working groups, Management Advisory Committee [MAC] and SAC).

### **Indirect and potential stakeholders**

- Australian Quarantine and Inspection Service (AQIS) on Thursday Island and their Outer Island staff. AQIS was not involved in the CRC but expressed a professional interest in the results, particularly those on marine pests and risks in the shipping lanes.
- The Island Councils not involved in the CRC.
- The island freezer staff not involved in the CRC.
- The ranger groups formed with the assistance of the LSMU.
- Community Boards. At the time of this study, a review of the community governance regime for Torres Strait was underway. Depending on the outcomes of this review, Community Island Councils may be replaced with Community Boards to be administered under the umbrella of a Torres Strait Regional Council. Future research under this scenario would most likely work through Community Boards and through the Torres Strait Regional Council. Exactly how this might happen is uncertain at this stage.
- The proposed Torres Strait Regional Council.
- Northern Peninsula Association (NPA) communities. There are five communities on the tip of Cape York. Two of these, Seisia and Bamaga, identify as Islander and are part of the TSRA. The CRC's contact with the NPA was limited. However, the TSRA's fisheries section includes all five communities in their work and they are potential stakeholders of any regional strategies including those associated with turtle and dugong.
- The Native Title Office is hosted by the TSRA and it was not a stakeholder in the CRC. However, it may be a stakeholder in future research through the activities of the Prescribed Bodies Corporate (PBCs, see below).

- PBCs. When Native Title is granted a PBC must be established to hold and manage the Native Title rights. Several PBCs now exist in Torres Strait, though their capacity to operate and their roles are not yet clear. The LSMU in the TSRA suggest that PBCs wish to be involved in NRM issues in the future and so they may become stakeholders in research.
- Tagai College, with its offices on Thursday Island, was established in 2007 to encompass all of the 'schools' in Torres Strait as campuses. With the exception of Thursday Island Campus, the College should be seen as a future point of entry for collaboration on research at the campus level.
- The Queensland Government's Office of Aboriginal and Torres Strait Islander Partnerships on Thursday Island (formerly the Department of Aboriginal and Torres Strait Islander Policy).
- QBuild, regarding the relationship between erosion and the construction and maintenance of barge ramps and other docking facilities on islands.
- The State and Commonwealth departments and the industry groups associated with the proposed gas pipeline from Papua New Guinea (PNG). The gas pipeline engineers would have an interest in seabed movement.
- Department of Foreign Affairs and Trade (DFAT) may become stakeholders of future research, e.g. regarding the PNG take and use of turtle and dugong and the development of the gas pipeline.
- The Island Coordinating Council – Infrastructure Support Unit – in relation to water and infrastructure.

## TOR 2a.

### Knowledge of the CRC's work

All of the agencies interviewed knew something about the CRC. Only staff in AFMA and the TSRA had a greater grasp of the complete scope of the CRC. One TSRA staff member felt it was difficult to see the whole of the CRC and to understand what had and had not been completed. Apart from the two PhD projects (turtle and dugong and subsistence), two others are still to be completed or are in abeyance; the cultural indicators project will be absorbed under the MTSRF program and form part of an integrated report card; the integrated prawn project (3.3) has been put on hold by AFMA. It was suggested that a list should be made of the completed and uncompleted projects.

Four CRC's reports were viewed during this project, namely, Begg et al on Spanish Mackerel; Skewes et al on beche de mer; Jones and Barnett on guidelines and protocols; and the booklet by Jones et al entitled 'Torres Strait Research, 2003-2006'. These documents all have a different format and only the booklet has a dedicated CRC badge. In several cases non-agency people did not associate the CRC research with the CRC, e.g. erosion was seen as a JCU project and sponge research an AIMS project. This may be due to the fact that posters are often given joint and equal badging. It could be argued that if an aim is for people to identify the research with the corporate entity known as the CRC, a standardised set of reports with a dominant CRC badge would be an advantage.

Non-agency people were most knowledgeable about those projects with which they were directly involved.

## **Knowledge of results**

Agency knowledge of the results was quite varied. However, no one agency had all of the results and it seemed that some agencies had only the results that might be considered relevant to them. For instance AFMA had the results of the work relating to fisheries management. The fisheries section of the TSRA had received results of the widest range of projects. Projects for which no one has received results include the general aquaculture study (1.7), the subsistence study (1.8), and the PZJA study (4.7).

Those non-agency people associated with the research into erosion, beche de mer, turtle and dugong and seagrass indicated that they had received, and in some cases were still receiving, results. Otherwise the view was that few results had been seen. Some, though not all, had seen the booklet, but it can be argued that this publication does not fully represent the research results.

## **Dissemination of results/information**

It was felt among agencies that there was a good flow of information during the project, communities were informed regularly of intended visits by researchers and the liaison officer provided updates on the work to fisheries representative groups and to communities. However, there is general dissatisfaction with the final dissemination of the results. There seems to have been some expectation that the final results would be presented by the researchers and the scientists to the communities and end users on a face-to-face basis. Or, that some other form of wrap up exercise would take place. As it is, this did not happen and it is thought that the CRC was not properly completed. The TSRA's LSMU suggested that the liaison officer within the MTSRF research might take on the role of disseminating the CRC's final results more fully, perhaps as part of the process of identifying future indicators of relevance to Torres Strait people under the integrated report card project. If taken up, this proposal could have resource implications for the LSMU.

Non-agency respondents indicated that they had received information about the research through a variety of sources, including through: the liaison officer; a report; a poster; indirectly from researchers; workshops; TSRA briefings; the TSRA's LSMU; and the booklet (though not all had seen this). However, it seemed that the most effective or well received way of transmitting information was face-to-face by researchers, and here the methods of Grayson on turtle and dugong and Parnell on erosion were praised. Another effective way of transmitting information appeared to be the TSRA Newsletters inserted in the Torres News. It was suggested that it cannot be assumed that information will be disseminated to the community level by representatives who attend meetings. Neither can it be assumed that information given to a 'council' will then trickle down to other community members. Two community members proposed that an ideal way of transmitting all the CRC research results and any future results would be by presentations on a DVD.

## **Clarity of the results/information**

Several agencies considered that the presentations on seagrass projects by Rob Coles and Jane Mellors, and on the erosion work by Kevin Parnell were particularly clear. It is not possible for me to fully analyse why this was so but I feel that it has to do with the fact that the researchers presented information face-to-face and, in the case of Kevin Parnell, included significant graphics. It seemed that those who found the reports clearest were those with the greatest scientific background, e.g. AFMA. The booklet was also thought to be quite clear. But some considered other reports rather technical, for example, the seabed mapping results were considered very technical and hard to understand by the fisheries section of the TSRA. In general it was thought that reports tended to have a traditional research format rather than being related to current management issues and that they were not designed for the stakeholders or end-users. The view was that results would be clearer to most people if

the graphic and visual content was increased (as in Begg et al) as this would allow agencies, such as the LSMU to use the information when working with their communities. It was suggested that this element should be built into the MTSRF projects from the outset, with each project having its own communication strategy.

Non-agency people involved in the turtle and dugong research felt the results were made very clear to them. They felt this was because they were directly involved with the researcher in editing the results. Nonetheless those directly involved still had to 'translate' the results for their older traditional owners. The groups involved in the erosion project feel that the results are being made clear to them through the methods adopted by Kevin Parnell, namely through face-to-face contact, and lap top presentations. Again it was suggested that visual information is easier for people on the ground to understand, and this may account for some of the value placed on Parnell's work. During the field work for this report, non-agency people were shown a proto-type of the turtle and dugong catch model being built by Jeremy Prince and presented on lap top. This form of presentation was also thought to be very clear.

The non-agency people who saw the booklet felt that it was clear and easy to understand, with the photographs cuing-in the reader to the text. Despite this, some respondents thought that the text would be too complicated for some of the older community members.

In one example, a CRC poster on the sponge project was written in Torres Strait Creole in an attempt to make the project accessible. However, some schools indicated that although children could speak Creole they could not read it and that the information on the poster might only have reached the older residents. This indicates how difficult it is to transmit information in a form that suits everyone.

### **Views of the CSIRO (draft) web site**

Some AFMA and TSRA staff commented on the draft web site. In most cases they could not locate the papers that they searched for. In addition, several people felt that material came up through the search function that did not belong there, e.g. old CRC progress reports, and non-CRC work. It was felt that this made the site confusing. An additional point of confusion was that the site address is a CSIRO address ([www.cmar.csiro.au/datacentre/torres/](http://www.cmar.csiro.au/datacentre/torres/)) and is different from the CRC site ([www.crctorres.com](http://www.crctorres.com)) that people are directed to in the booklet. It was suggested that a better web format might be a dedicated CRC Torres Strait site with a list of CRC reports, plus a search function. Consideration should be given to launching the site in its final form.

Several non-agency people were directed to the draft web site but no feed back was received from them on it. Several non-agency people had doubts about the value of a web-based data system because the internet is not always accessible to them, and many do not, or cannot, use it. In one case, someone was observed being unable to access the site. On the other hand, one person thought it would be a good system as it would allow people to explore a number of different subjects, though this same person felt that hard copy reports were also necessary.

## **TOR 2b. and TOR 2c. (combined)**

### **Success, impact and ongoing uses**

Comments suggest that the CRC had a positive impact in several areas and these are characterised here as: increased awareness and capacity building; management and sustainability; early intervention; and environmental impact. Some more negative comments are also included.

## **Increased awareness and capacity building**

Generally people thought that many of the research projects were potentially useful, The TSRA feel that the CRC's work kindled a general interest, awareness and enthusiasm in marine issues. They also felt the *mix* of environmental and marine issues and research activities in the CRC's portfolio had the added effect of increasing people's awareness of the relationship between environmental and marine issues. Several parts of the CRC process seem to have contributed to this generally positive view. These include the engagement of the liaison officer; the use of news articles; the involvement with the schools; the engagement with end-users such as the TSRA; and the collaboration between researchers, community members and hunters. For example, the practice of catch-and-release in the turtle tagging work (1.10) presented community elders and school students with a different appreciation of the animals; the information that some turtles had visited New Caledonia was described as 'a revelation'.

Similarly it was pointed out that collaborating with the researchers to compile the catch data sheets, and gendering the animals in the turtle and dugong project gave community members a new set of skills. It was also proposed more generally that the CRC's practice of involving communities in the research (and as now followed by the LSMU) is making people more aware of the research procedures and issues and increasing their potential to participate in decision making. One non-agency respondent felt that people are becoming more inclined to contribute to discussions and decisions about research, and suggests that this is due to community exposure to research projects, like those in the CRC.

## **Management and sustainability**

The TSRA management felt that although they have seen few research results, several things have happened on the ground which can be attributed to the CRC's work and processes. For instance, although the TSRA feels that the turtle and dugong research was initially problematic, they also believe that it has contributed to increasing stakeholder engagement in community management plans for these species. For example, islands are now putting together turtle and dugong management plans with the LSMU, partly as a flow-on from the CRC work. AFMA is now also developing turtle and dugong community management strategies and has recruited a dedicated turtle and dugong manager who utilises the results of the turtle and dugong research on visits to island communities. (One non-agency respondent felt that the value of any turtle and dugong management plans in Torres Strait would be compromised by the poor management and compliance regimes in the neighbouring Western Province of PNG.)

AFMA feel that the catch monitoring system established in the turtle and dugong project set a good foundation for this kind of work and is potentially very useful. However, they also feel its ongoing value will depend on the extent to which the monitoring is maintained in a useable system. Hammond Island and TRAWQ Community Council on Thursday Island were involved in this research. Hammond Island continues to record turtle and dugong catch data in liaison with the researcher, but TRAWQ does not. It was not possible to make contact with TRAWQ, but it appears that the monitoring has ceased there due to a lack of ongoing funding.

The subsistence project is one that is yet to be completed and so it is hard to gauge its full impact, but AFMA were unsure of its usefulness to them given its limited scope. Another agency staff member found the terms of reference for the study vague, and was unsure of the value of such research to local people. The Erub freezer manager continues to record the subsistence catch using the system established by the subsistence project, though only for the catch taken by commercial dinghies, and excluding the catch taken from the beach, and so the ongoing impact of this research would appear limited.

It would seem that the value to local people of any research that aims to establish catch data systems will depend on the strategies to maintain the systems. It is not clear what these strategies are in the case of the turtle and dugong and the subsistence projects.

One island community, Mer, has a Fisheries Management Team and this has already utilised the results of the eastern reef line fishery project to develop its own community management program. The team values this form of research as it feels it supplements 'local knowledge' and gives its management plans greater credibility with fishers and with government agencies. Of course, this assumes that there is agreement between the research findings and 'local knowledge', and this is not always the case, e.g. see the comments on the beche de mer research below.

Some research is seen as contributing to sustainability through providing data for ranger programs and community management plans. Aquaculture is also viewed by agencies as a way of supporting sustainability by reducing the pressure on the wild stock. Non-agency respondents share this view and also see aquaculture as having the potential to promote commercial development. It is unclear the extent to which the CRC project (1.7) has established the potential for commercial aquaculture in Torres Strait.

The Ports Corporation of Queensland were involved in the marine pests project and continue to utilise the monitoring system within Thursday Island port in collaboration with JCU. AQIS, who were not involved in the CRC, felt that the results of the research on marine pests could be useful to them in their role as monitors of ballast water. Several non-agency people thought the research projects on marine pests had potential value for the region given the number of vessels traversing the Strait.

### **Early intervention**

The CRC's engagement with the education system appears to have had a positive impact.

The CRC's engagement with the school system fills a community and a TSRA desire for scientific information on marine and environmental matters to be passed to young people. An Outer Island school felt that by showing students how to measure fish, the subsistence research increased their awareness of sustainability issues. The project also led to the development of a class drama unit which explored the taking of undersize fish, and fishing laws and policing. That school's Year 3 curriculum now includes a unit on endangered species and introduced pests. On the other hand, one teacher found it difficult to build the subsistence work into the curriculum because they were given short notice of it happening and felt that it would have been better if the CRC had planned its collaboration with the school further ahead. It was also suggested that it may be more productive to coordinate future research collaboration through the Tagai College which administers all of the Torres Strait campuses (see Stakeholders). This would increase the opportunity for the research to be aligned with other school activities, such as the Reef Guardian Program initiated by Education Queensland, and so increase its impact.

The staff of Thursday Island Campus views their involvement with the CRC very positively and are keen to be involved in future research and collaboration (see Future Research below). The CRC research was incorporated into the curriculum and class projects. In addition, the AFMA turtle and dugong manager, referred to above, now visits the Thursday Island Campus on a regular basis and gives what the school considers as effective presentations to students on the role of fisheries management. AFMA makes further links with Thursday Island Campus by inviting students to be observers at some of its working group meetings. Students of Thursday Island Campus who were involved in CRC research were given certificates, and a young Islander recently recruited by AFMA, presented her certificate as part of her job application. This same student prepared a class project and

presentation on beche de mer. In the belief that students take their school activities home, it was suggested that engaging with school students is an effective way of informing the community of research and management issues.

### **Environmental impact**

There was significant interest within agencies in the work associated with erosion (3.7), principally within the LSMU for whom erosion is a key issue for the sustainability of inhabited islands, and for the possible impact on resource matters, such as turtle nesting. The seagrass and seabed mapping research were also considered useful by agencies; the seagrass research is being utilised by the LSMU in its management plans, funded projects, and within its ranger programs. However, it was felt by the fisheries staff in TSRA that this kind of research would be more valuable if it could contribute to a greater understanding of the lobster and turtle and dugong habitats. Many non-agency people also felt that the CRC's environmental research (erosion, seabed mapping, seagrass, sand movement) was potentially valuable. However, like the LSMU, they felt that the work would be more valuable to them if it could highlight the relationship between the environment and the marine species, e.g. the possible impact of seabed movement on the seagrass and the knock-on effect on lobster and turtle and dugong. Related to the above, several agency and non-agency people felt that the current prawn research had limited value to local people, and that it would be more useful to research the impact of the prawn trawl on the environment (seabed and seagrass) and then explore how this might affect the habitats of those marine species considered important to local people, e.g. lobster and turtle and dugong. It was also thought that environmental research would have greater value to them if it could indicate change over time.

In summary, the erosion work has significant interest for people. The perceived value of much of the other environmental work related to the extent to which it could add to the knowledge of valuable marine resources. It was difficult to identify any local current or planned engagement with the sand movement research (2.2).

Both the guidelines (5.1, 5.1a) and the data base work (5.2) were seen as potentially useful by the TSRA and AFMA, though it was pointed out that the TSRA already has research protocols in place and that the CRC's paper on these came rather late in the CRC process. Some non-agency people saw value in the guidelines work, others did not: one respondent was keen to point out that having guidelines in place did not reduce the requirement for researchers to consult and involve the traditional owners, and another proposed that rather than universal guidelines, each island required its own set of guidelines and protocols.

Several TSRA and AFMA staff and non-agency people felt that the PZJA work (4.7) was potentially very useful, though they had not viewed the results.

### **Some negative views**

Not all non-agency respondents were totally positive about the CRC, one who was involved in the turtle and dugong project felt that despite a significant amount of effort there had been few tangible outcomes from the research. Another felt that the CRC should have lasted longer, so that it could show patterns of change. Also, although the TSRA feels that the CRC stimulated interest in marine issues, they think this momentum is in danger of being lost due to the slow progress of MTSRF. On the other hand, the LSMU values the fact that the MTSRF has engaged with them from the outset, and notes that the CRC might have been more useful to them if it had been able to interact with them in a similar way. The fact that this did not happen was not entirely the fault of the CRC; the NRM process that preceded the LSMU was experiencing some governance problems during the period when the CRC was most active.

Also, it appears that there was an expectation that the turtle and dugong research would lead directly to, or include, a community management plan. This did not happen and so although the work that was done on the ground is seen positively, it is felt that the research did not fully achieve the desired outcome for all parties. This also placed those who worked with the researchers in an unenviable position with their community elders and traditional owners; particularly in the Horn Island community. Hammond Island, which was also part of the turtle and dugong project, seemed to view the research more positively but were also keen to see some flow-on from the CRC's work.

As noted above, although AFMA have engaged with the turtle and dugong issues they are unsure how useful the catch data will be to them as it refers to percentages rather than to whole numbers. This represents something of a Catch-22 situation, because a condition on the research going ahead was that the data be limited to percentages. There is the added a concern within AFMA that this methodology sets a precedent that could spread to the catch data of other species.

Though the beche de mer research is now being utilised by AFMA, it is viewed negatively throughout by non-agency people. They feel that the research was poorly done and so do not value the results. For instance, people felt the surveys were carried out at the wrong times (of the tides and moon) and the sampling was in the wrong locations. (These comments are taken at face value here.) It was suggested that the legitimacy of such research would be increased if local people were more involved in the planning and in the actual field work. The foregoing reflects a fairly deep suspicion of 'scientific results' at the local level (see Sensitivities below). One person who has collaborated with researchers indicated that although his contact with them has increased his faith in the scientific approach, he still remains sceptical of some results.

There were mixed views on the value of the cultural indicators project (3.1). This project is incomplete and, to date has been worked on by three different researchers to no conclusion. The intention is to complete it within MTSRF. One suspects that there may be something basically wrong with a project that passes through the hands of so many researchers. Some agency and non-agency people felt that the work might have touched on new ground and so had the potential to be useful. Other respondents felt that the original proposal seemed to have little local relevance and was not well defined at the outset. It is recommended that some thought be given to clarifying the aims of this project and to estimating the value of continuing it.

AFMA feel that some researchers overstated their involvement with the task-associates and that this arrangement added little to the output of the CRC, while it increased the associates' work load.

Some of the above suggests that several projects did not include exit strategies or strategies to ensure that processes set in place by the research would be ongoing. It can be proposed that CRC-type research in general includes activities that may sit partly in the field of development and partly in the field of research. Research that includes development oriented activities tends to require plans aimed at ensuring those activities will be ongoing over an extended period.

## TOR 3a.

### Sensitivities

Cultural issues can sometimes be, or can become, political issues. As it is probably impossible to separate cultural issues from political issues, it is problematic to rely solely on notions of 'culture' when considering research sensitivities. For these reasons, this section takes a broader view of sensitivity than that applying to culture alone.

Agencies thought that quite a wide range of projects were potentially sensitive including anything to do with turtle and dugong or subsistence; the cultural indicators; the PZJA review; beche de mer research; and the east reef line research. Notable is the absence in their list of any research on the environment. Some non-agency people thought that very little of the CRC research included culturally sensitive issues, or they felt they were unable to comment on this question. Others said that the most culturally sensitive research was anything to do with traditional foods because these 'sustained their families and clans'. Other non-agency people proposed that all of the CRC was sensitive, and this may equate with suggestions that people are sensitive about research in general, as much as about the cultural component of research. For example, one comment was that the research was viewed as an exercise where the 'government took away' information for its own purposes rather than collecting it for the good of the local people.

One reason that agencies gave for research being sensitive related to the view that it might lead to restrictions on the taking of species; this applied especially to the turtle and dugong, east reef line fishery and subsistence projects. Similarly a couple of non-agency respondents suggested that the subsistence research (1.8) was sensitive because women thought that its aim was to penalise them for over harvesting or for taking undersize fish. The feeling was that more effort should go into rationalising such research projects to people in terms of their potential to support 'sustainability'.

Sensitivities also appear to arise through a general distrust of, or lack of faith in, the scientific method. For example, it was felt that researchers sometimes survey species at what is considered to be the 'wrong time', and so get skewed results, as described above for the beche de mer research. Increasing local participation in the research may help reduce this sensitivity.

Agency staff also thought some projects were sensitive because they confronted local knowledge. This applied to the turtle and dugong and beche de mer projects where the scientific results of the CRC and earlier research conflict with the local knowledge or beliefs about the abundance of the species. It was thought that the scientific world must make more effort to prove its case, for example by showing how and why abundance may change over time.

It was thought by all that the sensitivities associated with turtle and dugong research can be related to several factors, these include: the untimely and ill-judged press releases that suggested over-hunting; that the rationale for doing research on turtle and dugong was not clearly explained at the community level (this seems to also apply to the subsistence project); the history and suspicion of the results of earlier turtle and dugong research. Again as noted above, the feeling is that increasing local participation in research, including the aerial surveys, may help reduce this sensitivity. It is also thought that the turtle and dugong research would have been less sensitive if the research protocols, developed during the work, had been in place from the outset.

Agencies saw the PZJA work as potentially politically sensitive as it may confront the tensions between the aspirations of Islanders and the functions of government. Partly related to this was the view that in some areas of the Strait (e.g. the Eastern Islands) research on marine species may be sensitive because people associate it with the issue of differential access to the fisheries by Islander and non-Islander operators. In this way, the mackerel research may be sensitive not because of 'culture' but because of access and allocation.

An area of potential inter-island cultural sensitivity about turtle and dugong arose during this report. Several non-agency respondents suggested that the approach to hunting, and possibly the butchering and distribution of turtle and dugong, may vary between islands, with a general distinction being between the approaches taken by residents of Inner and Outer Islands. For this reason it was suggested that any management strategies for turtle and dugong should aim to cover the whole of the Strait, and should encourage everyone to recognise that it is a shared resource for which they are all responsible. The potential sensitivity or tension here was that it was thought unfair and unworkable to implement management strategies on just one or two islands.

## **TOR 3b.**

### **Handling of sensitivities**

Comments on the handling of sensitive issues by the CRC researchers relate almost entirely to the turtle and dugong and subsistence projects. In general all people thought that sensitivities were handled well by the researchers and the liaison officer. Compliments were paid to Jillian Grayson (turtle and dugong) and Sara Busilacchi (subsistence) for the performance of their work. In particular it was thought that Grayson handled sensitive issues well within the turtle and dugong project, although several factors seem to have contributed to the success. These factors include input from the liaison officer; the formation of a reference committee; the preparation of research protocols and the signing of a research agreement between the researcher, Torres Shire and the affected communities that allowed the traditional owners to edit out material that they thought was sensitive. This approach appears to have been very time consuming; for example, it is estimated that almost 70 per cent of liaison officer's time with the CRC was taken up working on the turtle and dugong project. Also, the approach was apparently devised in response to issues as they arose rather than being part of a plan, and it was suggested that the project would have been less sensitive if the strategies that were finally adopted had been built into the project at the outset.

The non-agency view was that the east reef line research was carried out well because it included community people to a significant degree. The results were valued and have been utilised as described above. It was put more than once by community people that the preferred and most effective research method was one that combined traditional and scientific knowledge. The turtle and dugong and the east reef line fishery projects appeared to have followed this approach.

## Future Research

People often qualified their views of the CRC's research by stating their requirements for future research and these are given below. In some cases the agency and non-agency requirements coincide.

The TSRA intends progressing some of its future research requirements through its links with MTSRF, though presently there are concerns about the apparent slippage in the MTSRF research program. Any future collaborative research would have to align with the objectives of TSRA's development plan and community priorities.

The education system appears keen to be involved in future research projects. Thursday Island Campus intends developing a role as a 'research hub' which would have the facility to interact and collaborate with visiting researchers in its own right. Thursday Island Campus is interested in collaborating on further research associated with seagrass, turtle and dugong and aquaculture (e.g. sponge, pearl seeding).

The TSRA and its LSMU would like to see more research on climate change, sea level rise and erosion. There were also requests from non-agency respondents for a more regional coverage to mapping of the seabed, seagrass quality, and sand movement. In addition, several respondents wanted some research on the pollutants that they suspect are coming from Ok Tedi (this would be different from the 1990s research on heavy metals). While providing a regional base-line, an environmental research program should also be designed to also reveal change. From a fishers' point of view, the overall aim of environmental research should be to relate the findings to the health and sustainability of the lobster fishery.

There is a belief that the prawn trawl damages the seabed and seagrass and that this affects the availability of lobster. Non-agency respondents wish to see research on this issue.

The TSRA and its LSMU and non-agency people would also like to see more research on aquaculture for commercial purposes e.g. sponge (at locations other than just Masig) and lobster grow-out. Non-agency people also requested research into aquaculture on beche de mer, and trochus. It is possible that the viability or otherwise of these were revealed by the CRC work on aquaculture (1.7). If this is so, then people are unaware of these results.

The TSRA and its LSMU would like to see more research on socio-economic issues and opportunities for Islanders to be engaged in environmental management and monitoring.

The TSRA and its LSMU would like more research on turtle and dugong catch data at the community level to complement their work on community-based planning. A socio-economic study on turtle and dugong is already envisaged within MTSRF and one suggestion from the LSMU was that this could focus on, or include, a cost-benefit analysis of establishing a system for Indigenous environmental service provision through a regional ranger program or another such mechanism.

Non-agency people were both for and against more research on turtle and dugong. One of the parties involved in the turtle and dugong research stressed that they did not want more research but rather that the CRC research should be used to produce a turtle and dugong management plan.

Another party was keen to have further research on turtle and dugong and felt that it should:

- Integrate the Torres Strait take data with that from PNG;

- Illustrate the PNG take and analyse its relationship to the socio-economic status of Western Province;
- Consider the meaning of 'traditional take' across Torres Strait;
- Consider the Torres Strait take as made up of two sections, namely a 'traditional take' and a 'table take'<sup>1</sup>;
- Consider strategies to reduce the 'table take', possibly by substituting beef or venison;
- Investigate the possible relationship between erosion and turtle nesting; and
- Investigate the apparent increased incidence of cysts on turtles.

Hammond Island, which is presently involved in the management of ghostnets, requested research on the impact of ghostnets on marine life.

AFMA and at least one non-agency fisher representative wished to progress research in the lobster fishery that would investigate the possible trade-offs or strategies necessary to ensure the sustainability of the 'take for sale', and also the 'take for consumption'.

## Documents Viewed During this Project

The CRC's bi-annual and annual task reports.

Arthur, W.S. 2004. 'Managing 'tradition' in the Torres Strait Treaty and Fisheries Act', Report prepared for the National Oceans Office, Hobart.

Begg, Chen, O'Neill, and Rose. 2006. *Stock Assessment of the Torres Strait Spanish mackerel fishery*, CRC Reef Research Centre Technical Report No. 66.

Jones et al 2006. *CRC Torres Strait Research 2003-2006*, CRC Torres Strait.

Jones and Barnett. 2006. *Guidelines for ethical and effective communication for researchers working in Torres Strait*, Report to CRC Torres Strait, CRC Reef Research Centre, Townsville.

Skewes, Taylor, Dennis, Haywood and Donovan. 2006. *Sustainability assessment of the Torres Strait sea cucumber fishery*, CRC-TS Project Task No. T1.4, Final Report.

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<sup>1</sup> Harvest for a normal meal rather than for a feast for a special event or ceremony (Arthur 2004).

## Appendix A

### Interviews carried out in April-May 2007.

Institution	Interviewees
AQIS, staff member No 1, Thursday Island	
TSRA, Native Title Project Officer, Thursday Island	
Inner islands fisher rep No1, Thursday Island	
TSRA Land and Sea Management Unit, Thursday Island	3 staff members
State High School, Thursday Island (1)	3 staff members
Inner islands fisher rep No 2, Thursday Island	
AFMA staff member No1, Thursday Island	Former task associate
AQIS, staff member No 2, Thursday Island	2 interviews
AFMA staff member No2, Thursday Island	
Poruma/Coconut Island	4 representatives
TSRA Land and Sea Management Unit	2 staff members
Badu Island	4 representatives
AFMA staff member No 3, Thursday Island	
AFMA staff member No 4, Thursday Island	
AFMA, staff member No 5, Thursday Island	Former task associate
TSRA Fisheries section, Thursday Island	2 staff members
Mer Murray Island	4 representatives
Mer school	2 staff members
Erub Darnley Island	5 representatives
Erub school	Principal
Masig York Island	4 representatives
Masig school	1 staff member
Mabuiag Island	2 representatives
TSRA, Executives, Thursday Island	2 executive staff
Hammond Island	3 representatives
Education Queensland, Thursday Island	1 staff member
Tropical rock lobster Working Group meeting, Thursday Island	address
TRL WG non-Indig. rep interview	
Ports Queensland	1 staff member
Horn Island school	Phone contact only
TRAWQ Community Council	Unable to make contact
Torres Shire, Thursday Island	Unable to make contact
Native Title Solicitor, Thursday Island	Unable to make contact

#### Notes

1. Now the Thursday Island campus of Tagai College. All schools in Torres Strait are now campuses of Tagai.

# Appendix B

## The Standard Questionnaires

### THE QUESTIONNAIRE FOR FISHERS AND COUNCILS

**Question 1, Would you prefer your answers to this survey to be CONFIDENTIAL?**

	Yes, remain confidential	I don't mind
Mark the appropriate box with an X		

**Question 2, please give me the following personal details**

Your name	
Male or Female	
Your age	
Your usual job/position	
Your employer	
Your home island	
Your email address	
Do you have access to the internet?	Yes No

**Question 3, Did you have any CONTACT with the work of the CRC Torres Strait between 2003 and 2007?**

	Yes	No
Mark the appropriate box with an X		

**Question 4, If you answered yes, select from the following list the type of contact you had (you can mark as many boxes as you need)**

	Mark with an X
I attended a workshop	
I worked with a CRC researcher	
I spoke to the CRC Islander contact officer (Mr Toshi Nakata)	
I heard an article on TSIMA radio	
I had another form of contact with the CRC (if so, please say what this was)...	

**Question 5, How were the RESULTS of the CRC research given to you? (Mark as many boxes as you need)**

	Mark with an X
I read a report	
I read a poster	
I read the booklet called 'CRC Torres Strait Research 2003-2006'	
I read an article in the Torres News	
I heard an article on TSIMA radio	
I visited the CRC web-site	
I got the results in another way (if so, please say what)...	
I did NOT get or hear any of the results	

**Question 6, How CLEAR were the results of the CRC research to you?**

	Very clear	Quite clear	Not at all clear
Mark only one of these boxes with an X			

**Question 7, If the results were not at all clear, say in a few words what you feel would have made them clearer for you...**

--

**Question 8, This is a list of the CRC projects. Mark with an X where you feel the research will be useful to you or to your community or the region, or NOT useful.**

No.	Name of CRC Research Project	Research will be useful to me		Research will be useful to my community or the region	
		Yes	No	Yes	No

1.1 & 1.14	Evaluate the Eastern reef line fishery				
1.2	Assess the status of the mackerel fishery				
1.3	Assess the lobster fishery and a possible TAC				
1.4 & 1.13	Assess the beche de mer fishery, and have workshops on Mer, Erub, Masig				
1.5	Gather data to manage the prawn fishery				
1.6 & 1.6a	Assess the potential for a sponge fishery				
1.7	Assess the potential for aquaculture				
1.8	Gather data on the Eastern subsistence fishery				
3.1	Determine culturally important marine resources and activities				
1.10	Identify strategies for managing the green turtle harvest				
1.11	Collect information to help communities manage T & D				
4.2	Involving Islanders in T & D research				
4.3/4.3a	Raising community awareness of T & D recovery methods				
2.1, 2.1a	Mapping the seabed and its biomass				
2.2	Determining the movement of the seabed (sandwaves)				
3.7	Investigate the issue of coastal erosion				
2.3	Determining the abundance of seagrass				
4.1/4.1a	Increasing the involvement of students in monitoring seagrass (Seagrass Watch)				
3.6	Monitor the quality of the seagrass in Thursday Island port (2004)				
3.2	Information to manage introduced marine species				
3.3	Develop a management strategy for the marine environment based on all environmental factors				
3.4	Determine the environmental health and risks associated with shipping lanes and Thursday Island port				
3.5	Provide baseline information on the introduced pests in Thursday Island port				
5.1, 5.1a	Provide guidelines for ethical research and communication of results				
5.2	Set up a system to manage research data and information				
4.7	Review the operations of the PZJA and the aspirations of Islanders				
If you said the research will be useful to you, say in a few words how you might use the results					
If you said the research would be useful to your community or region, say in a few words how the results might be used					

**Question 9, Mark with an X where you feel a project was CULTURALLY IMPORTANT AND SENSITIVE**

No.	Name of CRC Research Project	Included culturally sensitive issues	
		Yes	No
1.1 & 1.14	Evaluate the Eastern reef line fishery		
1.2	Assess the status of the mackerel fishery		
1.3	Assess the lobster fishery and a possible TAC		
1.4 & 1.13	Assess the beche de mer fishery, and have workshops on Mer, Erub, Masig		
1.5	Gather data to manage the prawn fishery		
1.6 & 1.6a	Assess the potential for a sponge fishery		
1.7	Assess the potential for aquaculture		
1.8	Gather data on the Eastern subsistence fishery		
3.1	Determine culturally important marine resources and activities		
1.10	Identify strategies for managing the green turtle harvest		
1.11	Collect information to help communities manage T & D		
4.2	Involving Islanders in T & D research		
4.3/4.3a	Raising community awareness of T & D recovery methods		
2.1, 2.1a	Mapping the seabed and its biomass		
2.2	Determining the movement of the seabed (sandwaves)		
3.7	Investigate the issue of coastal erosion		
2.3	Determining the abundance of seagrass		
4.1/4.1a	Increasing the involvement of students in monitoring seagrass (Seagrass Watch)		
3.6	Monitor the quality of the seagrass in Thursday Island port (2004)		

3.2	Information to manage introduced marine species		
3.3	Develop a management strategy for the marine environment based on all environmental factors		
3.4	Determine the environmental health and risks associated with shipping lanes and Thursday Island port		
3.5	Provide baseline information on the introduced pests in Thursday Island port		
5.1, 5.1a	Provide guidelines for ethical research and communication of results		
5.2	Set up a system to manage research data and information		
4.7	Review the operations of the PZJA and the aspirations of Islanders		

**Question 10, Did the CRC handle the culturally sensitive issues well?**

	Yes	No
Mark the appropriate box with an X		
If you have answered 'NO', please say what the problem was		

**Question 11, Say in a few words why some projects were culturally sensitive for you**

--	--

That is the end of the official interview, but have you any other comments you would like to make about the CRC Torres Strait? If so, add them here...

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I thank you for your time and your input.

The results of my survey will be provided to you by mail and by email.

#####  
THE GOVERNMENT AGENCY QUESTIONNAIRE

**Question 1, Would you prefer your answers to this survey to be CONFIDENTIAL?**

	Yes, remain confidential	I don't mind
Mark the appropriate box with an X		

**Question 2, please give me the following personal details**

Your name		
Male or Female		
Your age		
Your usual job/position		
Your employer		
Your home island (if applicable)		
Your email address		
Do you have access to the internet?	Yes	No

**Question 3, Did you have any CONTACT with the work of the CRC Torres Strait between 2003 and 2007?**

	Yes	No
Mark the appropriate box with an X		

**Question 4, If you answered yes, select from the following list the type of contact you had (you can mark as many boxes as you need)**

	Mark with an X
I attended a workshop	
I worked with a CRC researcher	
I spoke to the CRC Islander contact officer (Mr Toshi Nakata)	
I heard an article on TSIMA radio	
I had another form of contact with the CRC (if so, please say what this was)...	

**Question 5, How were the RESULTS of the CRC research given to you? (Mark as many boxes as you need)**

	Mark with an X
I read a report	
I read a poster	
I read the booklet called 'CRC Torres Strait Research 2003-2006'	
I read an article in the Torres News	
I heard an article on TSIMA radio	
I visited the CRC web-site	
I got the results in another way (if so, please say what)...	
I did NOT get or hear any of the results	

**Question 6, How CLEAR were the results of the CRC research to you?**

	Very clear	Quite clear	Not at all clear
Mark <u>only one</u> of these boxes with an X			

**Question 7, If the results were not at all clear, say in a few words what you feel would have made them clearer for you and your agency...**

**Question 8, This is a list of the CRC projects. Mark with an X where you feel the research will be useful to your agency or the region, or NOT useful. Or, if the research is not relevant to your agency.**

No.	Name of CRC Research Project	Research will be useful to me and my agency		Research will be useful to the region		Research is not relevant to my agency
		Yes	No	Yes	No	
1.1 & 1.14	Evaluate the Eastern reef line fishery					
1.2	Assess the status of the mackerel fishery					
1.3	Assess the lobster fishery and a possible TAC					
1.4 & 1.13	Assess the beche de mer fishery, and have workshops on Mer, Erub, Masig					
1.5	Gather data to manage the prawn fishery					
1.6 & 1.6a	Assess the potential for a sponge fishery					
1.7	Assess the potential for aquaculture					
1.8	Gather data on the Eastern subsistence fishery					
3.1	Determine culturally important marine resources and activities					
1.10	Identify strategies for managing the green turtle harvest					
1.11	Collect information to help communities manage T & D					
4.2	Involving Islanders in T & D research					
4.3/4.3a	Raising community awareness of T & D recovery methods					
2.1, 2.1a	Mapping the seabed and its biomass					
2.2	Determining the movement of the seabed (sandwaves)					
3.7	Investigate the issue of coastal erosion					
2.3	Determining the abundance of seagrass					
4.1/4.1a	Increasing the involvement of students in monitoring seagrass (Seagrass Watch)					
3.6	Monitor the quality of the seagrass in Thursday Island port (2004)					
3.2	Information to manage introduced marine species					
3.3	Develop a management strategy for the marine environment based on all environmental factors					
3.4	Determine the environmental health and risks associated with shipping lanes and Thursday Island port					
3.5	Provide baseline information on the introduced pests in Thursday Island port					
5.1, 5.1a	Provide guidelines for ethical research and communication of results					
5.2	Set up a system to manage research data and information					
4.7	Review the operations of the PZJA and the aspirations of Islanders					
If you said the research will be useful to you or your agency, say in a few words how you might use the results...						
If you said the research would be useful to your region, say in a few words how the results might be used...						

**Question 9, Mark with an X where you feel a project was CULTURALLY IMPORTANT AND SENSITIVE to Islanders**

No.	Name of CRC Research Project	Included culturally sensitive issues	
		Yes	No
1.1 & 1.14	Evaluate the Eastern reef line fishery		
1.2	Assess the status of the mackerel fishery		
1.3	Assess the lobster fishery and a possible TAC		
1.4 & 1.13	Assess the beche de mer fishery, and have workshops on Mer, Erub, Masig		
1.5	Gather data to manage the prawn fishery		
1.6 & 1.6a	Assess the potential for a sponge fishery		
1.7	Assess the potential for aquaculture		
1.8	Gather data on the Eastern subsistence fishery		
3.1	Determine culturally important marine resources and activities		
1.10	Identify strategies for managing the green turtle harvest		
1.11	Collect information to help communities manage T & D		
4.2	Involving Islanders in T & D research		
4.3/4.3a	Raising community awareness of T & D recovery methods		
2.1, 2.1a	Mapping the seabed and its biomass		
2.2	Determining the movement of the seabed (sandwaves)		
3.7	Investigate the issue of coastal erosion		
2.3	Determining the abundance of seagrass		
4.1/4.1a	Increasing the involvement of students in monitoring seagrass (Seagrass Watch)		
3.6	Monitor the quality of the seagrass in Thursday Island port (2004)		
3.2	Information to manage introduced marine species		
3.3	Develop a management strategy for the marine environment based on all environmental factors		
3.4	Determine the environmental health and risks associated with shipping lanes and Thursday Island port		
3.5	Provide baseline information on the introduced pests in Thursday Island port		
5.1, 5.1a	Provide guidelines for ethical research and communication of results		
5.2	Set up a system to manage research data and information		
4.7	Review the operations of the PZJA and the aspirations of Islanders		

**Question 10, Did the CRC handle the culturally sensitive issues well?**

	Yes	No
Mark the appropriate box with an X		
If you have answered 'NO', please say what the problem was		

**Question 11, Say in a few words why you feel some projects were culturally sensitive**

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**That is the end of the official interview, but have you any other comments you would like to make about the CRC Torres Strait? If so, add them here...**

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**I thank you for your time and your input.**

**The results of my survey will be provided to you by mail and by email.**